

C 1 6994

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND WELL COMPLETION REPORT

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

COUNTY NUMBER AS20414

ST/CO USE ONLY DATE RECEIVED MM DD YY

DATE WELL COMPLETED

Depth of Well

PERMIT NO. FROM "PERMIT TO DRILL WELL" HO-95-0708

OWNER: Wanchester Homes Inc. STREET OR RFD: Open Run Rd. TOWN: Ellicott City. SUBDIVISION: Riverwood Phase 2. SECTION: SECTION. LOT: 63

WELL LOG table with columns: DESCRIPTION, FEET (FROM, TO), check if water bearing. Includes entries for Sandstone and Gray granite.

GROUTING RECORD form with fields for WELL HAS BEEN GROUTED, TYPE OF GROUTING MATERIAL, NO. OF BAGS, NO. OF POUNDS, GALLONS OF WATER, DEPTH OF GROUT SEAL.

CASING RECORD form with fields for casing types (ST, CO, PL, OT), MAIN CASING TYPE, Nominal diameter, Total depth.

OTHER CASING (if used) table with columns for diameter and depth.

SCREEN RECORD form with fields for screen type or open hole, insert appropriate code below.

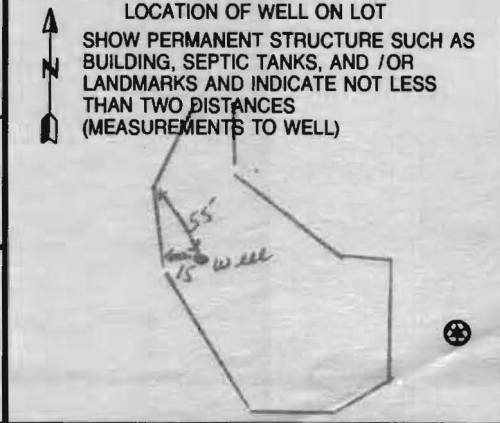
DEPTH (nearest ft.) table with columns for casing height and slot size.

GRAVEL PACK IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER) form with fields for T, W, Q, TELESCOPE CASING, LOG INDICATOR, OTHER DATA.

PUMPING TEST form with fields for HOURS PUMPED, PUMPING RATE, METHOD USED TO MEASURE PUMPING RATE, WATER LEVEL, BEFORE PUMPING, WHEN PUMPING, TYPE OF PUMP USED.

PUMP INSTALLED form with fields for DRILLER INSTALLED PUMP, TYPE OF PUMP INSTALLED, CAPACITY, PUMP HORSE POWER, PUMP COLUMN LENGTH, CASING HEIGHT, LAND SURFACE.



Bottom left section with fields for NUMBER OF UNSUCCESSFUL WELLS, WELL HYDROFRACTURED, CIRCLE APPROPRIATE LETTER, DRILLERS LIC. NO., DRILLERS SIGNATURE, LIC. NO., SITE SUPERVISOR.

B 1 9873

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL please type 525693

STATE PERMIT NUMBER

40-95-0708 fill in this form completely

Date Received (APA)

2/11/07

OWNER INFORMATION

Winchester Homes Inc 6905 Rockledge Dr. Suite 800 Bethesda Md 20817

B 3

LOCATION OF WELL

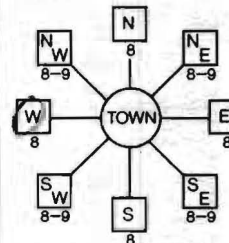
Howard County Riverwood Phase 2 Section 44 Lot 63 Ellicott City 5 miles from town

DRILLER INFORMATION

Joseph L. Maize MS D 024 5512 Ridge Rd Mt. Airy Md 21771

B 4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)



Open Run Rd 250 feet from road on north side

B 2

WELL INFORMATION

Approx. Pumping Rate 5 gal/min, Average Daily Quantity Needed 500 gal/day

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- Domestic Potable Supply & Residential Irrigation (circled), Farming, Industrial, Public Water Supply Well, Test, Geo-thermal

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

Howard County A 520414 State Signature Date Issued 2/13/07

Approximate Depth of Well 300 feet, Approximate Diameter of Well 6 inches

METHOD OF DRILLING (circle one)

Bored (for Augered), Jetted, Jetted & Driven, Air-Rotary, Air-Per percussion, Rotary, Cable, Reverse-Rotary, Drive-Point

REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX)

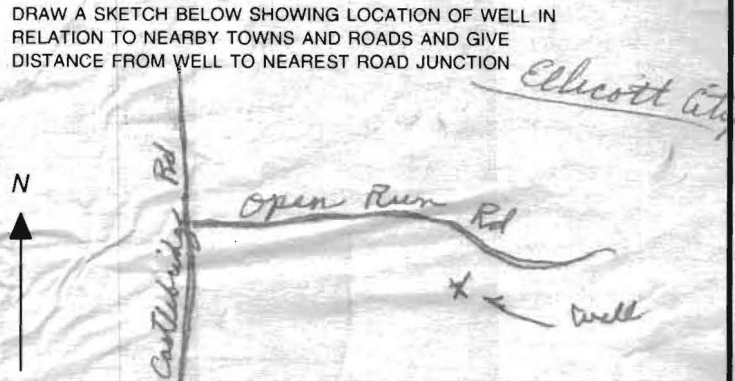
- This well will not replace an existing well (circled), This well will replace a well that will be abandoned and sealed, This well will replace a well that will be used as a standby-contact local approving authority for policy on standby wells, This well will deepen an existing well

Permit number of well to be replaced or deepened

Not to be filled in by driller (MDE OR COUNTY USE ONLY)

Approp. Permit Number H02004-G007, Permit No 40-95-0708

6/19/07 Radium Sample Taken During Yield Test. Box number 828 N 515



SPECIAL CONDITIONS

NOTE - APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED

NEED Radium Sample

**HOWARD COUNTY HEALTH DEPARTMENT
BUREAU OF ENVIRONMENTAL HEALTH
WATER AND SEWERAGE PROGRAM
TEL: (410)313-2640 FAX: (410)313-2648**

Information Form for the Installation of the Well Pump, Pitless Adapter, and Supply Piping

NOTE: The installer is responsible for requesting an inspection prior to 9 am on the day of the desired inspection. No work is to be covered until approved by the Health Department. All installations must comply with the National Standard Plumbing Code (NSPC, as amended locally) and COMAR 26.04.04 (MD Well Construction Regulations). Submission of a complete form is required prior to Use and Occupancy approval.

Company Name: NATIONAL WATER SVK Telephone #: 301-854-1333
Address: P.O. Box 138
Ashton, ND 20861

(Must circle one) Licensed Plumber Licensed Well Driller Licensed Well Pump Installer

License # and name of individual responsible for the field installation:

Name (Print): DAVID RYCKE License# PI 0145

*A licensed individual must perform the actual installation. Apprentices must be under the direct supervision of a licensed journeyman or master plumber, pump installer or well driller. Licenses may be subjected to field verification.

Name of Property Owner: WINCHESTER JONES Telephone #: 301-803-4174

Subdivision: RIVERWOOD Lot #: 63 Well Tag #: HO-8-0708

Site Address: 12035 OPEN RUN RD
ELICOTT CITY

Submersible Pump Data

Make: GRUNDFOS
Model #: 1559E10-220
Pump Capacity 15 GPM
Well Yield: 15 GPM

Pitless Adapter

Make: CAMPBELL
Model #: PA 800
Depth: 48 (36" min)
NSF approved: YES

Well Cap and Electric Conduit

Two piece watertight cap:
Screened, vented well cap:
Cap secured to casing:
Conduit min 18" B.G.:
Conduit secured to well cap:

Depth of well encountered at time of pump installation: 240 (feet)

If pump capacity exceeds well yield, a low water cut off switch is required by NSPC 1990 Section 17.8.4

Torque arrestors or Cable guards are required - Must circle one CPS

Safety rope, if used, attached to inside of well casing with eye bolt N/A

Piping to house

Type: PVC
PSI: 110 (160 psi min)
Depth of supply line: 4' (36" min)

House Connection

PVC sleeved to undisturbed soil at wall penetration: YES
Approximate length of sleeve: 5'
Sleeve caulked and sealed properly: YES

The water supply line is required to be at least ten feet from the septic tank, pump chamber, sewage piping, distribution box, drainfields, and sewage reserve area. If this cannot be accomplished, contact this office for approval prior to installation.

Signature of company representative responsible for installation

date

8-15-11

For Health Department Use Only - Not to be completed by Installer

Date Insp. Requested: _____ Date Insp. Approved: _____

- Inspection Data: Pitless adapter and water supply line at least 36" below grade _____
- Two piece cap installed and attached to casing securely _____
- Elec. conduit extends at least 18" below grade/attached to cap properly _____
- Safety rope installed inside of well casing _____
- Correct well tag attached properly and casing 8" above finished grade _____
- Water supply line sleeved adequately at house connection _____
- Adequate grout observed below pitless adapter _____

**HOWARD COUNTY HEALTH DEPARTMENT
BUREAU OF ENVIRONMENTAL HEALTH
WATER AND SEWERAGE PROGRAM
TEL: (410)313-2640 FAX: (410)313-2648**

Information Form for the Installation of the Well Pump, Pitless Adapter, and Supply Piping

NOTE: The installer is responsible for requesting an inspection prior to 9 am on the day of the desired inspection. No work is to be covered until approved by the Health Department. All installations must comply with the National Standard Plumbing Code (NSPC, as amended locally) and COMAR 26.04.04 (MD Well Construction Regulations). Submission of a complete form is required prior to Use and Occupancy approval.

Company Name: _____ Telephone #: _____
Address: _____

(Must circle one) Licensed Plumber Licensed Well Driller Licensed Well Pump Installer

License # and name of individual responsible for the field installation:

Name (Print): _____ License# _____

***A licensed individual must perform the actual installation. Apprentices must be under the direct supervision of a licensed journeyman or master plumber, pump installer or well driller. Licenses may be subjected to field verification.**

Name of Property Owner: _____ Telephone #: _____
Subdivision: _____ Lot #: 63 Well Tag #: HO-95-0708
Site Address: _____

Submersible Pump Data

Make: _____
Model #: _____
Pump Capacity _____ GPM
Well Yield: _____ GPM

Pitless Adapter

Make: _____
Model#: _____
Depth: _____ (36" min)
NSF approved: _____

Well Cap and Electric Conduit

Two piece watertight cap: _____
Screened, vented well cap: _____
Cap secured to casing: _____
Conduit min 18" B.G.: _____
Conduit secured to well cap: _____

Depth of well encountered at time of pump installation: _____ (feet)
If pump capacity exceeds well yield, a low water cut off switch is required by NSPC 1990 Section 17.8.4

Torque arrestors or Cable guards are required – Must circle one

Safety rope, if used, attached to inside of well casing with eye bolt _____

Piping to house

Type: _____
PSI: _____ (160 psi min)
Depth of supply line: _____ (36" min)

House Connection

PVC sleeved to undisturbed soil at wall penetration: _____
Approximate length of sleeve: _____
Sleeve caulked and sealed properly: _____

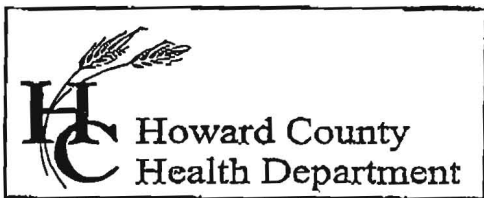
The water supply line is required to be at least ten feet from the septic tank, pump chamber, sewage piping, distribution box, drainfields, and sewage reserve area. If this cannot be accomplished, contact this office for approval prior to installation.

Signature of company representative responsible for installation _____ date _____

For Health Department Use Only – Not to be completed by Installer

Date Insp. Requested: _____ Date Insp. Approved: 7/1/11 (CW)

Inspection Data: Pitless adapter and water supply line at least 36" below grade
Two piece cap installed and attached to casing securely
Elec. conduit extends at least 18" below grade/attached to cap properly
Safety rope installed inside of well casing
Correct well tag attached properly and casing 8" above finished grade
Water supply line sleeved adequately at house connection under footer
Adequate grout observed below pitless adapter



7178 Columbia Gateway Drive, Columbia, MD 21046
 (410) 313-2640 Fax (410) 313-2648
 TDD (410) 313-2323 Toll Free 1-866-313-6300
 website: www.hchealth.org

Penny E. Borenstein, M.D., M.P.H., Health Officer

TO ALL INTERESTED PARTIES

When submitting a well permit application for a proposed well for new construction, please indicate one of the following:

Well Site Location:

Riverwood Phase II 43-77 Castlebridge Rd, Hunters View Road
 Subdivision/Property Name Lot# Road Name
Open Run Road & Whitford Way

The well site has been staked by Benchmark Eng,
 (professional land surveyor or company employing professional land surveyors)
 on _____ (date) and does not require a site inspection.

all lots will be staked by 12/29/06

The well driller, builder or property owner will call the Health Department to schedule a time to meet in the field to verify the proposed well site location.

This sheet, along with two copies of an acceptable well site plan, must be attached to the green well permit application.

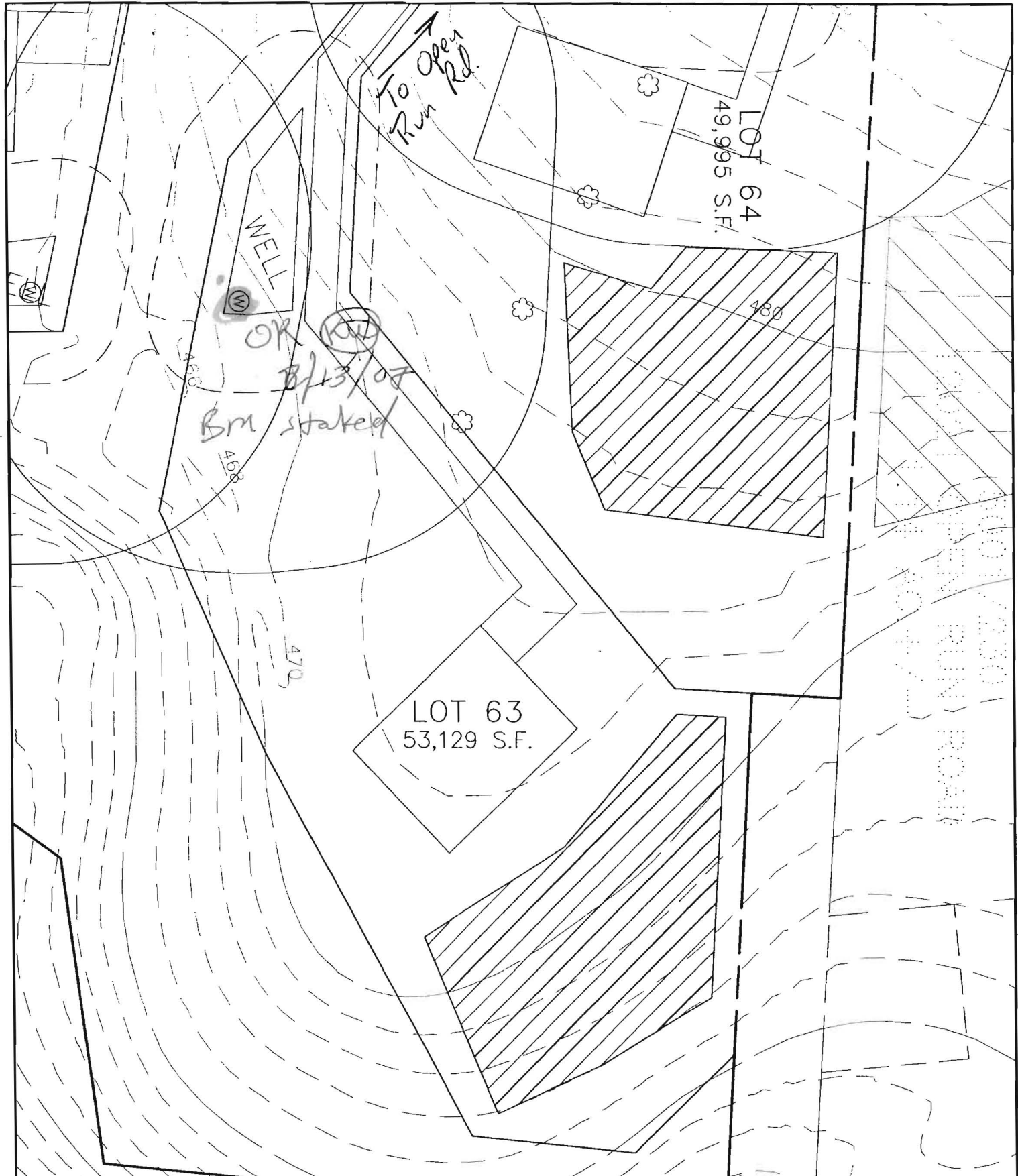
Revised 3/11/05

Contact is:

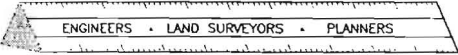
Easterday

301-829-1440

2006 DE 18 PM 2:32



BENCHMARK



ENGINEERING, INC.

8480 BALTIMORE NATIONAL PIKE • SUITE 418 • ELLICOTT CITY, MD 21043

PHONE: 410-465-6105 FAX: 410-465-6644

1132 Homewood Ave. #10251956 Lot 1/25/2007 8: AM
 inc. Kyocera Mira KM-2530 KX.pc3

RIVERWOOD, PHASE 2

LOT 63

FORTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

SCALE: 1" = 50' DATE: 1/24/07



Bureau of Environmental Health
7178 Gateway Drive Columbia, MD 21046
(410) 313-2640 Fax (410) 313-2648
TDD (410) 313-2323 Toll Free 1-866-313-6300
website: www.hchealth.org

Peter L. Beilenson, M.D., M.P.H., Health Officer

INTERIM CERTIFICATE OF POTABILITY
PERMANENT DEVIATION FOR NITRATES

Expiration Date – March 14, 2012

September 14, 2011

Homeowner
12033 Open Run Road
Ellicott City, MD 21042

RE: Riverwood, Lot #63
12033 Open Run Road
Building Permit: B11001210
Well Permit: HO-95-0708

Dear Homeowner:

This is to advise you that the septic system installation and water well construction for the above referenced property have been inspected and approved. Final approval of the septic system was granted on **08/05/2011**. Final approval of the well line connection to the dwelling was granted on **09/07/2011**. The well construction was completed on **06/18/2007**. Water samples were collected on **08/26/2011**.

The water sample results indicate that the water samples submitted for testing were free of coliform and fecal coliform bacteria at the time of sampling and are bacteriologically safe for drinking.

The untreated water sample collected on **08/26/2011** indicated a nitrate level of **23.5 mg/L**. **This exceeds the maximum acceptable level of 10 mg/L set forth in COMAR 26.04.04.09**. After installation of a nitrate removal device (kitchen tap reverse osmosis system), a post-treatment water sample was collected on **08/31/2011** and indicated a nitrate level of **<1.0 mg/L**.

This Department will grant a permanent deviation to the Interim Certificate of Potability on condition that the nitrate removal system effectively maintains a nitrate-nitrogen contaminant level of 10 mg/L or less.

Furthermore, it will be necessary for you to comply with the following conditions:

1. The system must be properly operated and maintained continuously in accordance with the service contract for the life of the residence.
2. It is recommended that a Maryland certified water laboratory certified for nitrates analysis perform a yearly nitrate analysis.
3. If you decide to sell or rent your home in the future, you must make any potential buyer/tenant aware of this permanent deviation. **A person who fails to make this disclosure is subject to the penalties set out in COMAR 26.04.04.12F Enforcement and Environment Article 9-1311, Annotated Code of Maryland.**

This certifies that the initial sampling requirements of COMAR 26.04.04 "Well Regulations" have been met for the water supply system installed under well permit HO-95-0708. Although the submitted sample results are in compliance with COMAR standards, the Health Department does not guarantee water supplies.

This Interim Certificate of Potability will expire six months from the date of issuance. Submission of a second bacteriological test indicating the water is free of coliform and fecal coliform bacteria is required prior to the expiration date, after which time a Final Certificate of Potability will be issued. **Failure to submit an additional sample and obtain a Final Certificate of Potability will result in a Notice of Violation and is punishable as a misdemeanor under the *Annotated Code of Maryland, Environment Article, 9-1311*, subject to a fine of up to \$500 or imprisonment not to exceed three months.**

Please contact (410) 313-1773 to schedule a final water sample appointment or contact a Maryland certified water quality laboratory to schedule a water sample. A list of laboratories certified by the state of Maryland may be found at the following website:
<http://www.mde.state.md.us/assets/document/WSP-Labs-2010apr16.pdf>

Approving Authority,



Brian Baker
Environmental Sanitarian
Well & Septic Program

cc: Howard County Dept. of Inspections, Licenses, and Permits
Community Hygiene Program
File

FOUNTAIN VALLEY ANALYTICAL LABORATORY, INC.

1413 Old Taneytown Rd. Westminster, MD (410) 848-1014 (410) 876-4554 FAX (410) 848-0298

REPORT OF ANALYSIS

Laboratory ID #: 81014 Account #: 3123
 Reference: Riverwood Lot 63 Company: National Water Servicing
 Location: 12033 Open Run Road Requested By: Dave Rycke
 Ellicott City, MD 21042 Source: Well Water
 Date/ Time Collected: 8/26/2011 1030 Site: Pressure Tank **OK**
 Date/Time Rec'd: 8/26/2011 1217 Treatment: Prior to Sediment Filter
 Chlorine ppm: Free: ND Total: ND pH: 5.8
 Collected By: J.Yeager 6176JY Well #: HO-95-0708

| PARAMETERS | RESULTS | UNITS | REFERENCE | METHOD | DATE/TIME/ANALYST |
|--------------------------------|---------|-------------|-----------|--------------------|------------------------|
| Bacteria, Coliform, Total, MPN | <1.0 | MPN/ 100 ml | <1.0 | SM18 9223 | 8/27/2011 / 1030 / BCD |
| Bacteria, E. coli, MPN | <1.0 | MPN/ 100 ml | <1.0 | SM18 9223 | 8/27/2011 / 1030 / BCD |
| Nitrate | 23.5 | mg/L | 10 | 601 | 8/26/2011 / 1600 / CCH |
| Turbidity | 2.38 | NTU | <10 | SM18 2130B | 8/26/2011 / 1400 / KME |
| Sand | NS | mg/L | 5 | Visual/Gravimetric | 8/26/2011 / 1400 / KME |

NOTES

- 1 mg/L = milligrams per liter (also, parts per million)
- 2 MPN/ 100 ml = Most Probable Number [of viable bacteria] per 100 ml of sample.
- 3 NS = Nonc Seen (NS indicates less than 5 mg/L)
- 4 NTU = Nephelometric Turbidity Units
- 5 Results less than or within the reference range are considered satisfactory and within potable water limits at the time of sampling.
- 6 ND:None Detected
- 7 Visual well check: Sealed, vented cap
- 8 pH and Chlorine level tested on site

Reason for Test : Use & Occupancy
 Building Permit # : B-11001210

Date Reported: 8/29/2011

FOUNTAIN VALLEY ANALYTICAL LABORATORY, INC.

1413 Old Taneytown Rd. Westminster, MD (410) 848-1014 (410) 876-4554 FAX (410) 848-0298

REPORT OF ANALYSIS

Laboratory ID #: 81059 Account #: 3123
Reference: Riverwood Lot 63 Company: National Water Servicing
Location: 12033 Open Run Road Requested By: Dave Rycke
Ellicott City, MD 21042 Source: Well Water
Date/ Time Collected: 8/31/2011 1216 Site: Reverse Osmosis Test Port
Date/Time Rec'd: 8/31/2011 1334 Treatment: Sediment Filter/Reverse Osmosis
Chlorine ppm: Free: ND Total: ND pH: 5.9
Collected By: J.Yeager 6176JY Well #: HO-95-0708

| PARAMETERS | RESULTS | UNITS | REFERENCE | METHOD | DATE/TIME/ANALYST |
|------------|---------|-------|-----------|--------|------------------------|
| Nitrate | <1.0 | mg/L | 10 | 601 | 8/31/2011 / 1600 / CCH |

OK

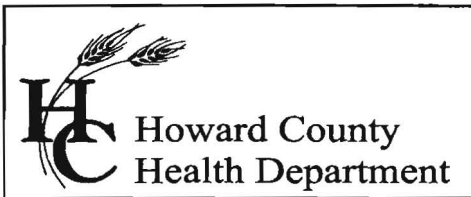
NOTES

- 1 mg/L = milligrams per liter (also, parts per million)
- 2 Results less than or within the reference range are considered satisfactory and within potable water limits at the time of sampling.
- 3 ND:None Detected
- 4 Visual well check: Sealed, vented cap
- 5 pH and Chlorine level tested on site

Reason for Test : Use & Occupancy

Building Permit # : B-11001210

Date Reported: 9/1/2011



Bureau of Environmental Health
7178 Columbia Gateway Drive, Columbia, MD 21046
(410) 313-2640 Fax (410) 313-2648
TDD (410) 313-2323 Toll Free 1-866-313-6300
website: www.hchealth.org

Peter L. Beilenson, M.D., M.P.H., Health Officer

August 24, 2007

Winchester of Howard County
6905 Rockledge Dr.
Suite 800
Bethesda, MD 20817

RE: Riverwood Subdivison, Lot# 63
Well Tag: HO-95-0708

To Whom It May Concern:

A sample was collected from a yield test on June 18, 2007 and submitted to Department of Health and Mental Hygiene Laboratories to assess the possible presence of **Gross Alpha** and **Gross Beta** in the future well water supply. **Gross Alpha** and **Gross Beta** measure the total alpha and beta particle activity in a water supply. In turn, this can provide information regarding naturally occurring radiation (i.e., Radionuclides) that may exist in your area of development within the County.

Results from this screening revealed a **Gross Alpha** of 9.0 ± 2.0 picocuries/liter (pCi/L); while the **Gross Beta** level was 7.0 ± 2.0 pCi/L. The **Gross Alpha** result was below its **maximum contaminant level (MCL)** of 15 pCi/L, while the **Gross Beta** level was below its target value of 50 pCi/L (roughly equivalent to the **annual dose rate** of 4 millirems/year).

At the time of testing and with respect to these parameters, the future well water supply appears safe for all uses. No additional testing for these parameters will be required to secure the future Use & Occupancy. However, other standard (potability) testing will still be necessary.

A copy of the test results is enclosed for your information. Please call this office at 410-313-1773 if you have any further questions.

Sincerely,

Bert Nixon, Deputy Director
Bureau of Environmental Health

cc: Eric Dougherty, MDE Water Mgmt., Groundwater
✓ Well & Septic File

REQUEST FOR PERMANENT DEVIATION TO
NITRATE STANDARDS FOR CERTIFICATE OF POTABILITY

DATE: 9-13-11 WELL PERMIT #: HO- 95 - 0708

PROPERTY OWNER: GERRY & CHARLOTTE DOYLE
SUBDIVISION & LOT #: RIVERWOOD #63
PROPERTY ADDRESS: 12033 OPEN RUN RD, ELLICOTT CITY

CONDITIONS:

- 1) The well installed under permit # HO- 95 - 0708 has been documented to have a nitrate level of 23.5 ppm which exceeds the MCL of 10 ppm. As a result of installation and operation of a nitrate filtration system, this nitrate contamination has been reduced to <1.0 ppm at the primary drinking tap.

I hereby request that a Permanent Deviation to COMAR 26.04.04.09 be granted for the well installed under permit HO- 95 - 0708 I am fully aware of the conditions under which this deviation will be granted, and of my responsibilities as the well owner, which include advising any future buyer/ tenant of the installation, condition and maintenance responsibilities of the nitrate removal device.

Prospective Owner's Original Signature(s) [Person(s) that intend to live in the dwelling]

Gerry Doyle

Charlotte Doyle

Prospective Owner's Day Time Phone Number(s)

703-732-6015